

## Claims

- [1] A method for constructing plural signals in the MIMO-WLAN system which transmits a data packet as the plural signals through multiple antennas, comprising:  
constructing a data packet to include a preamble for data packet transmission, a SIGNAL, an additional information section for data packet transmission of the MIMO-WLAN system and a service data unit;  
distributing data of the preamble and the SIGNAL in at least one of the plural signals;  
distributing data of the additional information section in at least one of the plural signals; and  
distributing data of the service data unit in at least one of the plural signals.
- [2] The method as claimed in claim 1, wherein the data of the additional information section includes information on the number of the plural signals of the MIMO-WLAN system.
- [3] The method as claimed in claim 1, wherein the data of the additional information section includes a transmission method of the MIMO-WLAN system.
- [4] The method as claimed in claim 1, wherein the data of the additional information section includes a data transmission rate of the MIMO-WLAN system.
- [5] The method as claimed in claim 1, wherein the data of the additional information section includes a training signal for channel estimation of the MIMO-WLAN system.
- [6] The method as claimed in claim 1, wherein the step of constructing the data packet places the additional information section prior to the service data unit.
- [7] The method as claimed in claim 1, wherein the data of the SIGNAL includes LENGTH\_N data to calculate time information for the data packet transmission according to the transmission rate of the MIMO-WLAN system.